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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/400,568 09/21/99 FLOYD

J 96B037/3

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IM22/1129

EXAMINER

CHEUNG, W

ART UNIT	PAPER NUMBER
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1713

DATE MAILED:

11/29/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trad marks**

# Office Action Summary

Application No.  
**09/400,568**

Applicant(s)  
**Floyd et al.**

Examiner  
**William Cheung**

Group Art Unit  
**1713**



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 9-18 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 9-18 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

Claims 1-8 are cancelled by the Preliminary Amendment under 37CFR1.115 submitted by attorney William G. Muller on September 21, 1999.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 9-18 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jejelowo (US 5,359,015).

*The invention of claims 9-18 relates to an **ethylene homopolymer or copolymer** having a melt index ratio (**MIR**) less than 35, preferably less than 25, a molecular weight distribution (**MWD**) of 2 to 15, a comonomer distribution breadth Index (**CDBI**) equal or greater than 60, and a melt strength (**MS**) equal or greater than **[6.0 – (6.0 x log (MI))]** or equal or greater than **[8.0 – (6.0 x log (MI))]**. Further the MI ranges from **0.3 to 1.2**. The comonomer for the copolymer is a **C<sub>3</sub> to C<sub>8</sub> α-olefinic monomer**.*

Jejelowo discloses a **polymerization process** to make ethylene homopolymers and copolymers (col. 21, line 37). In working examples, Jejelowo discloses a **gas phase** polymerization process (col. 16, line 59) to make **ethylene/1-butene copolymer** (col. 16, line 52-53; line 56-59) using an **asymmetric substituted cyclopentadienyl** ligands (col. 16, line 20-21) **metallocene catalyst** based on the use of **zirconium** transition metal (col. 16, line 37). The copolymer products have a **density** in the range of **0.904 to 0.944 g/cm<sup>3</sup>** with a **MWD ranges from 2.4 to 2.6** (col. 17, Table 1, Examples 3 & 4). In view of the substantial similarities in catalyst, monomer, and comonomer composition and similar gas phase polymerization process in the disclosure of Jejelowo and the disclosure in the instant application, the examiner has a reasonable basis to believe that the additional limitations on MIR, CDMI and the mathematical relationship between MS and MI are inherently possessed by Jejelowo. Since the PTO does not have proper

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means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. **In re Best**, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); **In re Fitzgerald**, 205 USPQ 594 (CCPA 1980).

Even assuming the MIR, CDMI and the mathematical relationship between MS and MI set forth in claims 9 and the MIR, CDMI and the mathematical relationship between MS and MI of Jejelowo are not the same, it would still have been obvious to one of ordinary skill in art to make ethylene homopolymers and copolymers having the claimed properties because the disclosure of Jejelowo generically embrace the claimed ethylene homopolymers and copolymers and the person of ordinary skill in the art would have expected all the embodiments of the reference to work.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (703) 305-0392. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for

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the organization where this application or proceeding is assigned are (703) 305-5885 for regular communications and (703) 305-5885 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.



William K. Cheung  
November 25, 2000



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700